REMARKS

Upon entry of this amendment, claims 6-8, 12, 13, and 17 will be pending in the above-identified application. Claims 1-5, 9-11, and 14-16 have been withdrawn from consideration.

Enclosed is a Credit Card Payment Form authorizing payment of the fee for a one month extension of time and the fee for an additional independent claim.

Drawings

Applicant requests withdrawal of the objection to the drawings. Figures 1-4 have been amended to include the indication of "PRIOR ART" per the Examiner's recommendation. Along with a complete set of replacement drawing sheets, a marked copy of Figures 1-4 showing the "PRIOR ART" additions in red is included for the Examiner's approval.

Specification

Applicant requests withdrawal of the objection to the disclosure. The disclosure has been amended per the Examiner's recommendation.

Double Patenting

Upon allowance of one of the claims, Applicant will consider the appropriateness of a terminal disclaimer.

Claims 6 and 7 - Verhaverbeke

Applicant respectfully requests reconsideration of the rejection of claims 6 and 7 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,261,845 (Verhaverbeke). As amended, claim 6 recites a substrate cleaning apparatus comprising liquid feeding means for feeding a liquid comprising at least one selected from the group consisting of **ammonia** and **aqueous ammonia**. Benefits of these features, as identified in the specification (e.g., pages 13 and 14) of the present invention, may include: (1) the high effectiveness of ammonia or aqueous ammonia as a liquid feeding means without compromising the achievement of a desired etching rate, (2) the etching rate can be controlled to be kept constant, (3) etching treatment can be

conducted uniformly and stably, (4) the life of the cleaning liquid can be prolonged, thus saving resources, (5) reduction in the waste water treatment agent required for the waste water treatment of the cleaning liquid, thus also saving resources, (6) reduction in the amount of sludge and waste water produced upon the waste water treatment, thus reducing by-products and also thereby the environment, and (7) the cost savings associated with achieving a more effective cleaning, saving resources and limiting wastes.

Verhaverbeke discloses methods and systems for determining chemical concentrations and controlling the processing of semiconductor substrates. Verhaverbeke discloses a "carrier stream" composed of deionized water. Verhaverbeke does not teach or suggest liquid feeding means for feeding a liquid comprising at least one selected from the group consisting of ammonia and aqueous ammonia.

Because Verhaverbeke fails to disclose or suggest every feature recited in claim 6, the Section 102(e) rejection is improper and should be withdrawn. Because claim 7 depends directly from claim 6, the Section 102(e) rejection of claim 7 is also improper and should be withdrawn.

Claims 6-8, 12, and 13 - JP '461

Applicant respectfully requests reconsideration of the rejection of claims 6-8, 12, and 13 under Section 102(e) as being anticipated by Japanese Patent No. JP8-334461 (JP '461). As amended, claim 6 recites a substrate cleaning apparatus comprising liquid feeding means for feeding a liquid comprising at least one selected from the group consisting of **ammonia** and **aqueous ammonia**. Benefits of these features, as identified in the specification (e.g., pages 13 and 14) of the present invention, may include: (1) the high effectiveness of ammonia or aqueous ammonia as a liquid feeding means without compromising the achievement of a desired etching rate, (2) the etching rate can be controlled to be kept constant, (3) etching treatment can be conducted uniformly and stably, (4) the life of the cleaning liquid can be prolonged, thus saving resources, (5) reduction in the waste water treatment agent required for the waste water treatment of the cleaning liquid, thus also saving resources, (6) reduction in the amount of sludge and waste water produced upon the waste water treatment, thus reducing by-products and also thereby the environment, and (7) the cost savings

associated with achieving a more effective cleaning, saving resources and limiting wastes.

JP '461 discloses a composition measuring method for buffered hydrofluoric acid for semiconductor wafer etching, wherein there is an ammonium-fluoride "solution feed zone." JP '461 does not teach or suggest liquid feeding means for feeding a liquid comprising at least one selected from the group consisting of ammonia and aqueous ammonia.

Because JP '461 fails to disclose or suggest every feature recited in claim 6, the Section 102(e) rejection is improper and should be withdrawn. Because claims 7, 8, 12, and 13 depend, directly or indirectly, from claim 6, the Section 102(e) rejections regarding them are improper and should be withdrawn.

Claim 6 - JP '891

Applicant respectfully requests reconsideration of the rejection of claim 6 under 35 U.S.C. § 102(e) as being anticipated by Japanese Patent No. JP9-22891 (JP '891). As amended, claim 6 recites a substrate cleaning apparatus comprising liquid feeding means for feeding a liquid comprising at least one selected from the group consisting of **ammonia** and **aqueous ammonia**. Benefits of these features, as identified in the specification (e.g., pages 13 and 14) of the present invention, may include: (1) the high effectiveness of ammonia or aqueous ammonia as a liquid feeding means without compromising the achievement of a desired etching rate, (2) the etching rate can be controlled to be kept constant, (3) etching treatment can be conducted uniformly and stably, (4) the life of the cleaning liquid can be prolonged, thus saving resources, (5) reduction in the waste water treatment agent required for the waste water treatment of the cleaning liquid, thus also saving resources, (6) reduction in the amount of sludge and waste water produced upon the waste water treatment, thus reducing by-products and also thereby the environment, and (7) the cost savings associated with achieving a more effective cleaning, saving resources and limiting wastes.

JP '891 discloses a device and method for wet process, wherein water is supplied to a tank. JP '891 does not teach or suggest liquid feeding means for feeding a liquid comprising at least one selected from the group consisting of ammonia and aqueous ammonia.

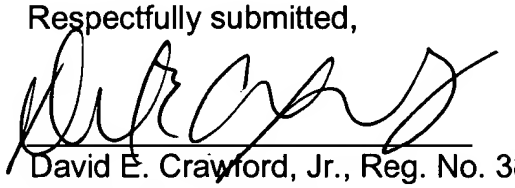
Because JP '891 fails to disclose or suggest every feature recited in claim 6, the Section 102(e) rejection is improper and should be withdrawn.

Conclusion

As it is believed that the application is in condition for allowance, a favorable action and Notice of Allowance are respectfully requested.

September 23, 2003

Respectfully submitted,



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